



## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2022-0453; Project Identifier MCAI-2020-01557-T]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Bombardier, Inc., Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The FAA proposes to adopt a new airworthiness directive (AD) for certain Bombardier, Inc., Model BD-700-1A10 and BD-700-1A11 airplanes. This proposed AD was prompted by reports of the loss of all air data system information provided to the flightcrew during flight; the air data system information was recovered as the airplane descended to lower altitudes. This proposed AD would require revising the existing airplane flight manual (AFM) to update the Unreliable Airspeed and Landing Distance Factor emergency procedures, which provide instructions for the flightcrew to stabilize the airspeed and altitude. The FAA is proposing this AD to address the unsafe condition on these products.

**DATES:** The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West

Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Bombardier Business Aircraft Customer Response Center, 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 1-514-855-2999; email [ac.yul@aero.bombardier.com](mailto:ac.yul@aero.bombardier.com); Internet <https://www.bombardier.com>. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

### **Examining the AD Docket**

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0453; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, any comments received, and other information. The street address for Docket Operations is listed above.

**FOR FURTHER INFORMATION CONTACT:** Chirayu Gupta, Aerospace Engineer, Mechanical Systems and Administrative Services Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; email [9-avs-nyaco-cos@faa.gov](mailto:9-avs-nyaco-cos@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Comments Invited**

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2022-0453; Project Identifier MCAI-2020-01557-T” at the beginning

of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend the proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

### **Confidential Business Information**

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Chirayu Gupta, Aerospace Engineer, Mechanical Systems and Administrative Services Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; email [9-avs-nyaco-cos@faa.gov](mailto:9-avs-nyaco-cos@faa.gov). Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

### **Background**

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued TCCA AD CF-2020-50, dated November 20, 2020 (TCCA AD CF-2020-50) (also referred to after this as the Mandatory Continuing Airworthiness Information, or the MCAI), to correct an unsafe condition for certain Bombardier, Inc., Model BD-700-1A10 and BD-700-1A11 airplanes. You may examine the MCAI in the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0453.

This proposed AD was prompted by reports of the loss of all air data system information provided to the flightcrew during flight; the air data system information was recovered as the airplane descended to lower altitude. An investigation determined that the root cause was usually high altitude icing (ice crystal contamination). The FAA is proposing this AD to address loss of all air data system information, which could lead to loss of continued safe flight and landing of the airplane. See the MCAI for additional background information.

#### **Related Service Information Under 1 CFR Part 51**

Bombardier, Inc., has issued the following service information. This service information describes procedures for stabilizing the airspeed and altitude of the airplane. These documents are distinct since they apply to different airplane models.

- Unreliable Airspeed procedure, Section 03-12, Primary Flight Displays, Chapter 3 – Emergency Procedures; and Instruments procedure, Landing Distance Factors section, of the Emergency Procedures section of Supplement 20 – Operations at Airport Elevations Above 10,000 Feet, Chapter 7 – Supplements; of the Bombardier Global Express AFM, Publication No. CSP 700-1, Revision 107, dated February 22, 2021. (For obtaining the procedures for Bombardier Global Express AFM, Publication No. CSP 700-1, use Document Identification No. GL 700 AFM-1.)

- Unreliable Airspeed procedure, Section 03-12, Primary Flight Displays, Chapter 3 – Emergency Procedures; and Instruments procedure, Landing Distance Factors section, of the Emergency Procedures section of Supplement 20 – Operations at Airport Elevations Above 10,000 Feet, Chapter 7 – Supplements; of the Bombardier Global Express AFM, Publication No. CSP 700-1A, Revision 107, dated February 22, 2021. (For obtaining the procedures for Bombardier Global Express AFM, Publication No. CSP 700-1A, use Document Identification No. GL 700 AFM-1A.)

- Unreliable Airspeed procedure, Section 03-12, Primary Flight Displays, Chapter 3 – Emergency Procedures; and Instruments procedure, Landing Distance Factors section, of the Emergency Procedures section of Supplement 20 – Operations at Airport Elevations Above 10,000 Feet, Chapter 7 – Supplements; of the Bombardier Global 5000 AFM, Publication No. CSP 700-5000-1, Revision 68, dated February 22, 2021. (For obtaining the procedures for Bombardier Global 5000 AFM, Publication No. CSP 700-5000-1, use Document Identification No. GL 5000 AFM.)

- Unreliable Airspeed procedure, Section 03-12, Primary Flight Displays, Chapter 3 – Emergency Procedures; and Instruments procedure, Landing Distance Factors section, of the Emergency Procedures section of Supplement 20 – Operations at Airport Elevations Above 10,000 Feet, Chapter 7 – Supplements; of the Bombardier Global 5000 Featuring Global Vision Flight Deck AFM, Publication No. CSP 700-5000-1V, Revision 37, dated February 22, 2021. (For obtaining the procedures for Bombardier Global 5000 Featuring Global Vision Flight Deck AFM, Publication No. CSP 700-5000-1V, use Document Identification No. GL 5000 GVFD AFM.)

- Unreliable Airspeed procedure, Section 03-12, Primary Flight Displays, Chapter 3 – Emergency Procedures, of the Bombardier Global 5500 AFM, Publication No. CSP 700-5500-1, Revision 8, dated November 11, 2020. (For obtaining the

procedures for Bombardier Global 5500 AFM, Publication No. CSP 700-5500-1, use Document Identification No. GL 5500 AFM.)

- Unreliable Airspeed procedure, Section 03-12, Primary Flight Displays, Chapter 3 – Emergency Procedures; and Instruments procedure, Landing Distance Factors section, of the Emergency Procedures section of Supplement 20 – Operations at Airport Elevations Above 10,000 Feet, Chapter 7 – Supplements; of the Bombardier Global 6000 AFM, Publication No. CSP 700-1V, Revision 37, dated February 22, 2021. (For obtaining the procedures for Bombardier Global 6000 AFM, Publication No. CSP 700-1V, use Document Identification No. GL 6000 AFM.)

- Unreliable Airspeed procedure, Section 03-12, Primary Flight Displays, Chapter 3 – Emergency Procedures of the Bombardier Global 6500 AFM, Publication No. CSP 700-6500-1, Revision 8, dated November 11, 2020. (For obtaining the procedures for Bombardier Global 6500 AFM, Publication No. CSP 700-6500-1, use Document Identification No. GL 6500 AFM.)

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

#### **FAA's Determination**

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the State of Design Authority, the FAA has been notified of the unsafe condition described in the MCAI and service information referenced above. The FAA is proposing this AD because the FAA evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop on other products of the same type design.

## **Proposed AD Requirements in this NPRM**

This proposed AD would require revising the existing AFM to update the Unreliable Airspeed and Landing Distance Factor emergency procedures, which provide instructions for the flightcrew to stabilize the airspeed and altitude.

TCCA AD CF-2020-50 requires operators to “inform all flight crews” of revisions to the AFM, and thereafter to “operate the aeroplane accordingly.” However, this proposed AD would not specifically require those actions as those actions are already required by FAA regulations. FAA regulations require operators furnish to pilots any changes to the AFM (for example, 14 CFR 121.137), and to ensure the pilots are familiar with the AFM (for example, 14 CFR 91.505). As with any other flightcrew training requirement, training on the updated AFM content is tracked by the operators and recorded in each pilot’s training record, which is available for the FAA to review. FAA regulations also require pilots to follow the procedures in the existing AFM including all updates. 14 CFR 91.9 requires that any person operating a civil aircraft must comply with the operating limitations specified in the AFM. Therefore, including a requirement in this proposed AD to operate the airplane according to the revised AFM would be redundant and unnecessary.

## **Costs of Compliance**

The FAA estimates that this AD, if adopted as proposed, would affect 395 airplanes of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

### **Estimated costs for required actions**

<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
1 work-hour X \$85 per hour = \$85	\$0	\$85	\$33,575

## **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska, and
- (3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

**PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

**§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

**Bombardier, Inc.:** Docket No. FAA-2022-0453; Project Identifier

MCAI-2020-01557-T.

**(a) Comments Due Date**

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Bombardier, Inc., Model BD-700-1A10 and BD-700-1A11 airplanes, certificated in any category, serial numbers (S/Ns) 9002 through 9998 inclusive, and S/Ns 60001 through 60027 inclusive.

**(d) Subject**

Air Transport Association (ATA) of America Code 34, Navigation.

**(e) Unsafe Condition**

This AD was prompted by reports of the loss of all air data system information provided to the flightcrew during flight; the air data system information was recovered as the airplanes descended to lower altitudes. The FAA is issuing this AD to address loss of

all air data system information, which could lead to loss of continued safe flight and landing of the airplane.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Revision of the Existing Airplane Flight Manual (AFM)**

Within 30 days after the effective date of this AD: Revise the existing AFM to incorporate the information specified in the AFM sections and supplements, as applicable, of the AFM revisions specified in figure 1 to paragraph (g) of this AD.

**Figure 1 to paragraph (g) – AFM References**

<b>Bombardier Airplane Model (Marketing Designation)</b>	<b>AFM</b>	<b>AFM Section</b>	<b>AFM Supplement, If Applicable</b>	<b>AFM Revision and Issue Date</b>
BD-700-1A10 (Global Express)	Bombardier Global Express AFM, Publication No. CSP 700-1 <sup>1</sup>	Unreliable Airspeed procedure, Section 03-12, Primary Flight Displays, Chapter 3 – Emergency Procedures	Instruments procedure, Landing Distance Factors section, of the Emergency Procedures section of Supplement 20 – Operations at Airport Elevations Above 10,000 Feet, Chapter 7 – Supplements	Revision 107, dated February 22, 2021
BD-700-1A10 (Global Express XRS)	Bombardier Global Express AFM, Publication No. CSP 700-1A <sup>2</sup>	Unreliable Airspeed procedure, Section 03-12, Primary Flight Displays, Chapter 3 – Emergency Procedures	Instruments procedure, Landing Distance Factors section, of the Emergency Procedures section of Supplement 20 – Operations at Airport Elevations Above 10,000 Feet, Chapter 7 – Supplements	Revision 107, dated February 22, 2021

<b>Bombardier Airplane Model (Marketing Designation)</b>	<b>AFM</b>	<b>AFM Section</b>	<b>AFM Supplement, If Applicable</b>	<b>AFM Revision and Issue Date</b>
BD-700-1A11 (Global 5000)	Bombardier Global 5000 AFM, Publication No. CSP 700-5000-1 <sup>3</sup>	Unreliable Airspeed procedure, Section 03-12, Primary Flight Displays, Chapter 3 – Emergency Procedures	Instruments procedure, Landing Distance Factors section, of the Emergency Procedures section of Supplement 20 – Operations at Airport Elevations Above 10,000 Feet, Chapter 7 – Supplements	Revision 68, dated February 22, 2021
BD-700-1A11 (Global 5000 ft. GVFD)	Bombardier Global 5000 Featuring Global Vision Flight Deck AFM, Publication No. CSP 700-5000- 1V <sup>4</sup>	Unreliable Airspeed procedure, Section 03-12, Primary Flight Displays, Chapter 3 – Emergency Procedures	Instruments procedure, Landing Distance Factors section, of the Emergency Procedures section of Supplement 20 – Operations at Airport Elevations Above 10,000 Feet, Chapter 7 – Supplements	Revision 37, dated February 22, 2021
BD-700-1A11 (Global 5500)	Bombardier Global 5500 AFM, Publication No. CSP 700-5500-1 <sup>5</sup>	Unreliable Airspeed procedure, Section 03-12, Primary Flight Displays, Chapter 3 – Emergency Procedures	Not applicable	Revision 8, dated November 11, 2020
BD-700-1A10 (Global 6000)	Bombardier Global 6000 AFM, Publication No. CSP 700-1V <sup>6</sup>	Unreliable Airspeed procedure, Section 03-12, Primary Flight Displays, Chapter 3 – Emergency Procedures	Instruments procedure, Landing Distance Factors section, of the Emergency Procedures section of Supplement 20 – Operations at Airport Elevations Above 10,000 Feet, Chapter 7 – Supplements	Revision 37, dated February 22, 2021

<b>Bombardier Airplane Model (Marketing Designation)</b>	<b>AFM</b>	<b>AFM Section</b>	<b>AFM Supplement, If Applicable</b>	<b>AFM Revision and Issue Date</b>
BD-700-1A10 (Global 6500)	Bombardier Global 6500 AFM, Publication No. CSP 700-6500-1 <sup>7</sup>	Unreliable Airspeed procedure, Section 03-12, Primary Flight Displays, Chapter 3 – Emergency Procedures	Not applicable	Revision 8, dated November 11, 2020
<sup>1</sup> For obtaining the procedures for Bombardier Global Express AFM, Publication No. CSP 700-1, use Document Identification No. GL 700 AFM-1. <sup>2</sup> For obtaining the procedures for Bombardier Global Express AFM, Publication No. CSP 700-1A, use Document Identification No. GL 700 AFM-1A. <sup>3</sup> For obtaining the procedures for Bombardier Global 5000 AFM, Publication No. CSP 700-5000-1, use Document Identification No. GL 5000 AFM. <sup>4</sup> For obtaining the procedures for Bombardier Global 5000 Featuring Global Vision Flight Deck AFM, Publication No. CSP 700-5000-1V, use Document Identification No. GL 5000 GVFD AFM. <sup>5</sup> For obtaining the procedures for Bombardier Global 5500 AFM, Publication No. CSP 700-5500-1, use Document Identification No. GL 5500 AFM. <sup>6</sup> For obtaining the procedures for Bombardier Global 6000 AFM, Publication No. CSP 700-1V, use Document Identification No. GL 6000 AFM. <sup>7</sup> For obtaining the procedures for Bombardier Global 6500 AFM, Publication No. CSP 700-6500-1, use Document Identification No. GL 6500 AFM.				

**(h) Other FAA AD Provisions**

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, New York ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the certification office, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300. Before using

any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) *Contacting the Manufacturer:* For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, New York ACO Branch, FAA; or Transport Canada Civil Aviation (TCCA); or Bombardier, Inc.'s TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

**(i) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) TCCA AD CF-2020-50, dated November 20, 2020, for related information. This MCAI may be found in the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0453.

(2) For more information about this AD, contact Chirayu Gupta, Aerospace Engineer, Mechanical Systems and Administrative Services Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; email [9-avs-nyaco-cos@faa.gov](mailto:9-avs-nyaco-cos@faa.gov).

(3) For service information identified in this AD, contact Bombardier Business Aircraft Customer Response Center, 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 1-514-855-2999; email [ac.yul@aero.bombardier.com](mailto:ac.yul@aero.bombardier.com); Internet <https://www.bombardier.com>. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

Issued on April 5, 2022.

Lance T. Gant, Director,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

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